Washington State On-Site Wastewater Technical Review Committee

Minutes for the March 12, 2003 Meeting

Approved on April 9, 2003 by Vote of the Committee

Washington State Department of
Health

Washington State Department of Health
Office of Environmental Health and Safety
7171 Cleanwater Lane, Building 4
PO Box 47825
Olympia, Washington 98504-7825

Tel: 360.236.3062
FAX: 360.236.2261
Webpage: http://www.doh.wa.gov/ehp/ts/waste.htm

Washington State On-Site Wastewater Technical Review Committee

Minutes for the March 12, 2003 Meeting

Approved on April 9, 2003 by Vote of the Committee

CONTENTS

Note: The minutes periodically refer to "Items." Items are documents containing information on a subject being discussed. Items, with their descriptions/titles, are noted at the end of the minutes in the section entitled "List of Meeting Materials.

MEETING ATTENDEES

Members Present

1. Kevin Barry, Eastside Env. Hlth
2. Scott Jones, Engineers
3. Melanie Kimsey, Dept of Ecology
4. Eric Knopf, Designers, Installers, O&M
5. Pam Denton, Local Env. Health staff
6. Bill Peacock, Public sewer utilities
7. Tom Rogers, Proprietary Devices
8. Mike Vinatieri, Westside Env. Hlth

Guests Who Signed In or Presented

1. David Allan, MultiFlo-Nayadic dealer
2. Peter Lombardi, Orenco Systems Inc.
3. Dave Lowe, WOSSA, Dave's Designs
4. Jim Wiley, Hancor Inc.

DOH Staff

1. Laura Benefield, Wastewater Program
2. John Eliasson, Wastewater Program
3. Mark Soltman, Wastewater Program
4. Dave Lenning, TRC Coordinator

INTRODUCTION

Tom Rogers, Chair, called the meeting to order at approximately 10:00 a.m. on March 12, 2003 in the meeting room of the BEST Inn in Ellensburg. The meeting began with brief introductions by each committee member, DOH staff, and the interested parties in the audience.

MINUTES

February 5-6, 2003 Meeting Minutes Adoption – David Lenning indicated there was an error on the pagination of the minutes and that the page numbers needed to be corrected. By unanimous vote, the committee approved the February 5-6, 2003 TRC meeting minutes as amended.

ADMINISTRATIVE MATTERS

1. After a brief discussion, the committee decided to hold the next TRC meeting on it's regularly scheduled date of April 9-10, 2003.
2. Dave Lenning asked the committee about scheduling meeting for the balance of 2003 after the currently scheduled June 11 and 12 meeting. The committee established a schedule of 2-day meeting to be held on the second Wednesday and Thursday of September, October and December for the rest of 2003 and of February, April, June, September, October, and December in 2004. Dave will check on the availability of the meeting room with the committee and report back at the next meeting.

Summary Of Technical Discussions: Technical Issue #1 – Treatment Standards 1 & 2

1. Tom Rogers indicated a concern he had heard from WOSSA representatives that there was a lack of input into the process for developing recommendations on the technical issues being discussed by the TRC and the RDC.
   a. Kevin Barry reminded everyone that all the TRC and RDC meetings are open meetings.
   b. Mark Soltman informed the committee that it's really at the RDC where input from the various interests should be made. The RDC constituency, including several positions from WOSSA, was selected to assure that a variety of interests had the opportunity to provide input. He stated that there would be a significant number of opportunities for input, including the TRC, RDC, public workshops/meetings, and the State Board of Health hearings. He said an economic impact statement would be developed.
   c. Committee discussion concluded that it is up to each interest to get together and determine the best way for that interest to be kept informed and provide input into the rule revision process.
2. John Eliasson introduced the subject for the meeting's discussion – treatment levels and their application. Three primary topical areas were to be discussed:
   a. What parameters should be used?
   b. What should the concentrations of the parameters be?
   c. Where/How do we apply the levels?
3. **Water Resource Areas –** Page 1 of the handout (See **Item #1)**
   a. Bill Peacock asked for an example of a drinking water source in a sensitive area. John Eliasson responded with the example of a well or spring in a sensitive area, and that the boundary of 200 feet was from the water source.
   b. Kevin Barry suggested that if the aquifer was sensitive, it doesn't make a difference if there is a well or not. It's the aquifer that warrants the protection. If the aquifer is vulnerable, it's vulnerable.
   c. Mark Soltman asked if there was a horizontal distance that will provide adequate protection to a water source located in a sensitive aquifer.

- Melanie Kimsey indicated that if nitrogen was the issue, lot size is an issue. The 200 feet helps provide larger areas that will provide some additional protection. Kevin Barry added that this was applicable to any pollutant.

d. Pam Denton stated that if local or state agencies don't designate areas with sensitive aquifers, we might have the same issue as we currently have with "Areas of Special Concern" that aren't being readily designated.

e. Melanie Kimsey asked if areas that have been designated as Sole Source Aquifers, etc., would fall under "sensitive aquifers."

f. Mark Soltman reminded the committee that the proposal being discussed assumes there are higher risk areas that will require higher treatment levels than other areas with lesser risks. All the pieces to be discussed at the meeting are part of a complete package.

4. **Treatment levels** – page 2 & 3 of the handout

a. Melanie Kimsey asked if a system that was tested to meet a specific treatment level would be "deemed to comply." How do you determine if a system is functioning properly when it is in use?

- Eric Knopf suggested the answer lies with O&M – a set of observations and/or measurements will indicate the level of function.
- Mike Vinatieri - if samples are collected as part of the on-going O&M activities, and the test results are way off, it does raise a red flag.
- Mark Soltman - any sampling results are not intended to be a pass-fail test.
- Pam Denton asked if information on observations and measurements would be placed in the RS&Gs. Scott Jones suggested 1) local health jurisdictions would require that kind of assistance and 2) placing that kind of information in the RS&Gs is desirable.

b. The committee briefly discussed the suggested definitions included on a separate handout (See **Item #2)**

c. Pam Denton – we need to be aware of waivers that currently exist as the impact of rule changes is evaluated/assessed. For example, the current Class B waivers may need to be resubmitted.

d. Melanie Kimsey – What happened to the "**N**" that was in an earlier draft. Eric Knopf and John Eliasson reminded her that the proposed nitrogen standard applied to any of the tables or levels wherever nitrogen is a concern.

e. Tom Rogers – We need to look at how easy it is to meet a treatment level. This needs to be considered when changes from current requirements are evaluated.

f. Mark Soltman reviewed the different technologies that meet the different levels (Table B on page 4 of the handout).

g. Mark Soltman reviewed the issue of disinfection. He reminded the TRC of concerns the committee had exhibited in the past with disinfection, especially due to its questionable reliability. This led to the staff position to try to use technologies that met the proposed Treatment Levels B and C without having to use disinfection. He also reviewed the current allowances for disinfection which are found in various RS&Gs and the "Effluent Quality Based Drainfield" document:

- Tested units get both vertical separation and drainfield size reductions.
- Untested units get only a drainfield size reduction.

h. Mark Soltman – the question now relates to how to apply disinfection in the proposed treatment level scenario.

i. Scott Jones asked if there was a current testing protocol for individual disinfection units. Laura Benefield responded that no such protocol currently exists. The NSF Standard 46 has previously been deemed problematic for a number of reasons.

j. Dave Lowe asked to make a brief presentation and handed out a 1-page document (See **Item 3**).

- He questions whether a drainfield following a recirculating gravel filter needs 24 inches of vertical separation.

- He would like to see the recirculating gravel filter being useable to meet Treatment Level B.
- He asked if the fecal coliform numbers for Treatment Levels B and/or C could be changed to 50,000/100 ml.

k. Tom Rogers – It doesn't seem like were giving any credit to the treatment provided by the soil.

l. John Eliasson – believes that we do give credit to the soil's treatment abilities in Table C – allowing Treatment Level C with a vertical separation of less than 24 inches. We should be amending our recirculating gravel filter RS&G to design systems that will meet a standard of <10,000 fecal coliform/100 ml instead of changing our proposed parameter concentrations based on guesses of what treatment levels different technologies may be able to meet.

m. Kevin Barry - The real issue is with subsurface drip systems. That needs to be dealt with in the RS&Gs, not the WAC.

n. Discussion then ensued as to what the fecal coliform numbers should be. Dave Lenning reminded the committee how it had developed the currently proposed numbers and the sources of information it had used to reach agreement on those numbers.

o. Everyone agreed that Table B (the list of technologies meeting the proposed treatment levels) would not be in the WAC.

p. **Motion:** by Kevin Barry – Keep Table A as it currently is.

- **Second:** Melanie Kimsey
  - Much discussion ensued, including the following:
    - Eric Knopf - Is concerned with the reliability of disinfection
    - Mike Viniatieri – What can the soil take with or without a biomat? He referred to an article in the latest Small Flows that spoke to treatment from peat and recirculating filters. He suggests we come back to the numbers after we've discussed the rest of the package and after looking at the article in the Small Flows.
    - Dave Lenning reminded the committee of the technical research report (drainfield reductions for highly treated waste) that indicated concerns of driving microorganisms deeper when a biomat was not present.
    - Mike Vinatieri – If we change the fecal coliform number to 50,000/100 ml, we don't have to go with untested disinfection units. That's an advantage. He indicated he'd rather depend on the soil rather than on disinfection technology.
    - Laura Benefield – How do we justify the numbers, especially if we go to 50,000? Scientific justification is needed for such a change.
    - Bill Peacock – We're putting the table on treatment levels in the rule. He asked if the rest of the tables also go into the rule. Mark Soltman responded that all the other tables (excluding Table B) are intended to be placed in the rule.
    - Bill Peacock – Is there a way to add a footnote that adjustments could be made where drip irrigation is used? Kevin Barry responded - that needs to be dealt with in the RS&Gs, not the WAC.
    - The committee agreed that non-tested disinfection units (either independently or as part of a treatment train) should not be used to meet Treatment Levels B or C.
  - **Vote:** Yes – 6, No – 1 (Tom Rogers), Abstain – 1 (Mike Vinatieri)

5. **Tables C & D – requirements outside water resource areas** (Page 5)

a. John – we want to look at these tables one more time to either reaffirm the decisions made at the last meeting or to change them.

b. **Motion:** by Kevin Barry – Adopt both tables C and D

- **Second:** by Mike Vinatieri
- **Vote:** Yes – 8, No – 0

6. **Table E – requirements within drinking water resource areas** (Page 6)

a. Bill Peacock asked why tables E & F only state =36 inches while Table C broke up the vertical separations in two categories - =36 inches to <60 inches, =60 inches. John Eliasson replied that

action had been taken because the required treatment levels were the same for both rows so they were combined.

b. Bill Peacock suggested that tables C, E, and F look the same.

c. **Motion:** by Bill Peacock – Make Table E consistent with Table C with regards to breaking the =36 inch row into two rows.
   - **Second:** Kevin Barry
   - **Vote:** Yes – 8, No – 0

d. **Motion:** by Bill Peacock – In the cell under soil type 2 with a vertical separation of =60 inches, require Treatment Level E
   - **Second –** Kevin Barry
   - **Vote –** Yes – 8, No – 0

e. All agreed that the rest of Table E was acceptable.

7. **Table F – requirements within surface water resource areas** (Page 7)
   a. **Motion:** by Bill Peacock - Make Table F consistent with Table C and the revised Table E with regards to breaking the =36 inch row into two rows.
      - **Second:** Scott Jones
      - **Vote:** Yes – 8, No – 0

   b. **Motion:** by Bill Peacock - 1) Require Treatment Level C for soil type 1 with a vertical separation =60 inches. 2) Require Treatment Level E for soil types 2-6 with a vertical separation =60 inches. 3) Adopt the rest of the table as is.
      - **Second:** Eric Knopf
      - **Vote:** Yes – 8, No – 0

8. **Revised Table VI** (Page 8)
   a. John Eliasson summarized the thought process that went into the revised table.

   b. Melanie Kimsey suggested that a statement be added – Level N may be added to any of the other levels where nitrogen is a concern. She would prefer that designation of "sensitive areas" be mandatory. She suggested that more detail be added to the definition of "sensitive areas," that it's satisfactory if that detail is placed in an RS&G.

   c. Kevin Barry – We need to ask ourselves where nitrogen is not a chemical of concern, so it's clearer where the nitrogen standard should apply.

   d. Pam Denton – there will be concern in some counties that allow reduced vertical separations for systems that are >100 feet from surface water or a drinking water source without a waiver for repairs. The proposed requirements where horizontal setbacks >100 feet will change that.

   e. Kevin Barry suggested that the last column (>100 feet) be deleted or limit it to 100 – 150 feet.

   f. **Motion:** by Mike Vinatieri - Adopt the proposed revision to Table VI, making sure it applies to repairs with insufficient 1) horizontal separation to sources of drinking water or surface water or 2) insufficient vertical separation.
      - **Second:** by Bill Peacock
      - **Vote:** Yes – 8, No – 0

   g. John Eliasson asked about when tested and non-tested disinfection units can be used/will be required.

   h. **Motion:** by Kevin Barry – Non-tested disinfection units can only be used for repairs requiring Treatment Level A and require tested units for new construction and other levels.
      - **Second:** by Mike Vinatieri
      - **Vote:** Yes – 7, No – 1 (Eric Knopf)

9. DOH staff was asked to provide data on the difference between 10,000 fecal coliform/100 ml and 50,000 fecal coliform/100 ml.

10. David Allan talked about the importance of filtering effluent before disinfection. He informed the committee of his experience with an ATU that allows scum to escape as soon as there are 3 or more

inches of accumulation. He was concerned that this can be used along with disinfection to meet the current treatment standards 1 and 2. We need to ask if ATUs have some mechanism to remove solids

ADMINISTRATIVE/OTHER ISSUES

1. The next regularly scheduled meeting will be April 9-10, 2003 at the same location in Ellensburg.
2. The meeting was adjourned

MEETING MATERIALS1

Meeting Agenda – March 12, 2003

Item #1 – Treatment Levels & Their Application, March 12, 2003 – Discussion Draft

Item #2 – On-site System Terminology (Draft – for discussion purposes only)

Item #3 – Handout from Dave's Designs, Incorporated

---

[1] All listed meeting materials are maintained by the Department of Health in a meeting manual entitled: *Technical Review Committee Meeting, March 12, 2003*. For further information, please contact the Department of Health's Wastewater Management Program at (360) 236-3062.